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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)
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Inquiry Concerning Deployment of)
Advanced Telecommunications Capability to)
All Americans in a Reasonable And Timely)
Fashion, and Possible Steps To Accelerate)
Such Deployment Pursuant to Section 706)
of the Telecommunications Act of 1996)

CC Docket No. 98-146

COMMENTS OF GTE

Gail L. Polivy
GTE Service Corporation
1850 M Street, N.W.
Suite 1200
Washington, D.C. 20036
(202) 463-5214

Thomas R. Parker
GTE Service Corporation
600 Hidden Ridge, MS HQ-
E03J43
P.O. Box 152092
Irving, Texas 75015-2092
(972) 718-6361

Jeffrey S. Linder
Joshua S. Turner
WILEY, REIN & FIELDING
1776 K Street, NW
Washington, D.C. 20006
(202) 719-7000

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COMMENTS OF GTE

GTE Service Corporation and its below-listed affiliates¹ (collectively, "GTE") respectfully submit their comments concerning the Notice of Inquiry ("NOI") in this docket.² The NOI was issued in response to Section 706(b) of the 1996 Act, which directs the Commission to "regularly...initiate a notice of inquiry concerning the availability of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and

¹ GTE Alaska, Incorporated, GTE Arkansas Incorporated, GTE California Incorporated, GTE Florida Incorporated, GTE Hawaiian Telephone Company Incorporated, The Micronesian Telecommunications Corporation, GTE Midwest Incorporated, GTE North Incorporated, GTE Northwest Incorporated, GTE South Incorporated, GTE Southwest Incorporated, Contel of Minnesota, Inc., GTE West Coast Incorporated, and Contel of the South, Inc., GTE Communications Corporation, GTE Wireless Incorporated, GTE Internetworking, and GTE Media Ventures Incorporated.

² FCC 00-57 (released February 18, 2000).

classrooms)”³ Based on this inquiry, the Commission is to “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”⁴ If its determination is negative, the Commission “shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.”⁵ As discussed below, GTE urges the Commission to be guided by one fundamental principle in discharging its obligations under § 706: to promote the “reasonable and timely” deployment of advanced telecommunications capability, the Commission should engage in the least possible regulation and should treat all providers of advanced telecommunications capability symmetrically.

I. Introduction and Summary

In its first Section 706 Report (“*First Report*”), the Commission correctly concluded that the deployment of advanced telecommunications services was proceeding in a reasonable and timely fashion.⁶ In this proceeding, which marks the second inquiry into the topic, the Commission asks whether advanced

³ Public Law No. 104-104, § 706(b), 100 Stat. 153 (reproduced at 47 U.S.C. § 157 note).

⁴ *Id.*

⁵ *Id.*

⁶ See Inquiry Concerning the Deployment of Advanced Telecommunications to All Americans in a Reasonable and Timely Fashion, Report, 14 FCC Rcd 2398 (1999).

services are still being deployed in a reasonable and timely fashion. The answer, in the main, is yes. Broadband has become a very important consumer product, and the continuing increases in demand for broadband services show no sign of plateauing. As with all technologies in the early stages of implementation, neither the availability nor the consumption of broadband services is completely uniform across the country. In general, however, the market is performing admirably, bringing a wealth of new technologies and opportunities to the majority of American households.

For this reason, there is no need for more regulation or greater government intervention in the process of delivering broadband services. In fact, the unevenness in broadband availability is exacerbated by current laws and regulations. Across the country, the Regional Bell Operating Companies ("RBOCs") are being prevented from supplying badly needed on-ramp and backbone services on either a wholesale or retail basis by provisions written into law before this burgeoning, and increasingly important, market even existed. The inability of major local telephone companies to provide these backbone services (or to allow others to use their facilities to do so) limits the availability of broadband access to the Internet in some rural and urban communities.⁷

Without readily available high-speed transport, consumer and business

⁷ Allowing use of the RBOCs' facilities, and thus further competition, in the Internet backbone market became even more important after the two largest backbone providers, Sprint and MCI Worldcom, announced their intention to merge.

broadband access in these areas becomes technically difficult, unreliable, and prohibitively expensive. Indeed, research indicates that deployment of broadband capabilities would be much farther along if the prohibition on interLATA transport of data were lifted. These studies demonstrate that the benefits of lifting the data transport restrictions would be felt by every American, but would be especially prevalent in rural environments.

The Commission must also recognize that broadband services are being provided by a range of different companies, using a variety of technologies, from twisted copper phone lines to coaxial cable to wireless and satellite. As a result, broadband service does not fit neatly into traditional regulatory categories. Many companies provide services that are functionally equivalent, and interchangeable from the standpoint of the consumer, yet face vastly different regulatory obligations. If broadband access is ever to reach its full potential, these artificial and discriminatory barricades need to be lifted, and the Commission must create regulatory symmetry between products that are substitutable in the marketplace.

Against this background, GTE provides the following specific responses to issues raised in the NOI:

- The Commission should change the definition of “advanced telecommunications services” to include asymmetric services, such as ADSL, that in the consumer market are universally considered to be broadband.
- The Commission should find that no additional regulation is required to spur reasonable and timely broadband deployment.
- The Commission should acknowledge that Section 271’s prohibition on the transport of Internet data by the RBOCs is the

primary impediment to even faster roll-out of better and cheaper broadband service, and poses a substantial risk of stifling economic development in rural areas. To this end, the Commission should endorse congressional initiatives to eliminate the restrictions on Internet data transport contained in Section 271, and should create a simpler, more accessible waiver process for modifying LATA boundaries.

- If broadband competition is to flourish, there must be regulatory parity between different broadband service offerings. The different regulatory regimes that apply to cable, CLEC, and RBOCs are relics of an earlier time, and have no place in the broadband market.
- While the Commission should recognize that no universal service mandate in the area of advanced services is necessary, any mechanism that the Commission does adopt must be competitively neutral and allow for carriers to fully recover their costs.

Finally, and as an paramount guiding principle, the Commission should allow the market to shape the future of telecommunications. Regulatory barriers, such as the Section 271 restrictions and the eligibility and spectrum cap limitations on C and F block licenses, are already threatening to distort the natural evolution of broadband service. Additional regulation would only compound these problems and cause further delay in assuring broadband access to all Americans.

II. The Definition of “Advanced Telecommunications Capability” Should be Changed To More Accurately Track Market Reality.

The Commission seeks comment on the existing definition of “advanced telecommunications capability,” which requires that a service support speeds of

200 kbps in both up- and downstream paths in order to qualify.⁸ To more accurately reflect conditions in the marketplace, the FCC should adopt a definition of “advanced telecommunications capability” that is broad enough to cover the increasingly popular asymmetric transmission services.

More and more small business and residential users are finding that they do not need equally high-bandwidth connections in both the upstream and downstream directions. The pattern of home and small business use is often for a user to send a small message upstream (such as a request for a file), and then to receive a much larger message downstream (such as the file itself).

The current FCC definition of “advanced telecommunications capability” does not take this fact into account. Instead, in order to qualify as an “advanced telecommunications capability,” a service must accommodate both an incoming and outgoing bit rate of 200 kbps.⁹ This overly restrictive definition fails to include many types of ADSL, one of the most popular forms of home-based DSL, as advanced telecommunications services. Mass market consumers, however, disagree. ADSL is a popular choice among customers who are looking for an alternative to cable modems, and is universally considered by the people who actually purchase it to be “broadband,” in the sense that it is an advanced telecommunications service on the same level as cable modem service.¹⁰

⁸ NOI at ¶ 8.

⁹ *Id.*

¹⁰ Other asymmetric services, such as HDSL and SHDSL, should also be included in the Commission’s definition of advanced capabilities, since they will

GTE proposes a more inclusive definition, which would recognize the reality that asymmetry is acceptable and even desirable for most consumers, since its potential disadvantages are rarely felt and it can cost much less to provide than symmetric services. Defining “advanced services” as offering, at a minimum, a 56 kbps digital upstream and a 200 kbps digital downstream would more accurately capture current service offerings, such as ADSL, which the public already perceives to be “broadband.” This definition, however, would exclude services that use a V.90 or other 56K protocol analog modem return path, since most consumers view an advanced service as one which does not require the use of an analog modem and its attendant total occupation of a telephone line.¹¹

III. Despite Regulatory Barriers, Advanced Services are Generally Becoming Available to All Americans Without Undue Focus on Geographic or Demographic Lines.

The important question for this inquiry is not whether there are regional or demographic differences in deployment. All new technologies take time to develop and deploy, and certain geographic and demographic groups will naturally adopt given new technologies before other groups. Rather, the key question for the FCC is whether the regional differences are systemic and

without a doubt be marketed to and purchased by the same consumers who currently can receive broadband services only from the cable company.

¹¹ Further, speaking of the “deployment of advanced services” loses meaning when referring to technologies which employ analog modems, since these can be used with existing infrastructure without modification.

unreasonable, and what, if anything, the Commission can do to ameliorate any problems that may exist.

Broadband services are being deployed throughout the country at a very rapid pace. While the deployment is not completely uniform, there are no indications that a market failure is occurring. Indeed, to the extent that there are irregularities in the deployment of broadband services, research indicates that these irregularities are to a large degree caused by Section 271. That section does not allow the largest local telephone companies to provide interLATA Internet services, including on-ramps and backbone transport, on either a wholesale or retail basis.

A. Artificial, Discriminatory Regulatory Barriers are the Biggest Impediment to Faster and More Widespread Deployment of Broadband Services.

The Commission asks whether broadband backbone facilities are still being deployed in a reasonable and timely manner.¹² It also inquires what, if anything, it can do to speed the deployment of broadband resources if, in fact, there are any disparities in deployment.¹³ Some of the most significant impediments to faster deployment of high-quality, inexpensive broadband service are the restrictions placed on RBOCs offering Internet transport services, which extend to both wholesale and retail services. Calling for the removal of these

¹² See NOI at ¶ 15.

¹³ See NOI at ¶ 43-49.

barriers would be the most effective action that the FCC can take to spur broadband deployment.

1. The Communications Act Is Creating a Barrier to Entry in Internet Backbone Markets.

Section 271 prevents RBOCs from providing interLATA Internet on-ramp and backbone services and from allowing other entities to use the RBOCs' networks to do so. As a result, a carrier that wishes to establish a point-of-presence to provide backbone service must lay its own fiber, rather than leasing the physical plant owned by the RBOCs that is already in place. The cost of laying fiber to rural areas is often prohibitively expensive, meaning that these areas are left with backhaul facilities that are unable to efficiently provide the highest-quality broadband service to interested consumers. In many of these areas, fiber optic capacity is available, but since this fiber is owned by RBOCs, it cannot be utilized for interLATA Internet traffic. As a result, broadband access, where available, is much more expensive in rural areas than it needs to be.

2. Research Indicates That The Restrictions On Use of RBOC Facilities Are Severely Hampering The Provision of Internet On-Ramp and Backbone Services.

The report, *Breaking the Backbone*, identifies the critical impact that the Section 271 Internet data restrictions have had on the growth of the Internet

backbone, and by extension on the broadband market.¹⁴ This study finds that regulation is one of the main factors preventing broadband investment. All else being equal, “when local exchange companies and their Internet service provider have the freedom to build Internet backbone hubs and networks, they build them.”¹⁵

Through the use of a statistical model, the study quantifies the level of backbone investment that has been lost because of the Section 271 data restrictions on RBOCs. Without regulation, the study concludes that 2,149 Internet hubs would have been built.¹⁶ Compared to the 984 hubs that have actually been deployed under current regulations, that is a 118% improvement.¹⁷ Furthermore, the study notes that this loss has been felt across the country, in every state, in both urban and rural areas.

The potential consequences of broadband service that is overly expensive or unreliable can be severe. More and more companies are moving to an electronic model for distribution of information. Large national corporations are requiring suppliers, distributors and franchisees to exchange important documentation solely through the Internet. In practical terms, this means that

¹⁴ See Olbeter, Erik, and Robison, Matt, Breaking the Backbone: The Impact of Regulation on Internet Infrastructure Deployment (July 27, 1999), *available at* <<http://www.iadvance.org>>.

¹⁵ *Id.* at 3.

¹⁶ *Id.* at 25.

¹⁷ *Id.*

broadband connections are the only way to efficiently do business. If broadband connections are not available in rural areas, or are available only at high cost, these businesses will be forced to relocate. Many of these suppliers, distributors and franchisees are small enterprises, which make up an important part of rural economies.

3. The Problems Caused By Section 271 Demonstrate That More Regulation Is Not The Answer.

The conclusions in *Breaking the Backbone* vividly illustrate that more regulation is not needed. The market is doing an adequate job providing broadband services on a reasonable and timely basis where it is allowed to do so without government interference. In areas where there has been government action, however, the resulting regulation is hampering deployment rather than helping it. If the Commission decides that the speed of deployment should be increased, or that rural areas are not getting the full benefit of the broadband revolution, then the easiest and most effective step for the Commission to take would be to endorse legislative initiatives to eliminate the restrictions on interLATA Internet traffic and thus free up underutilized capacity in rural areas. By lifting the Section 271 restrictions as they apply to the Internet, these bills would decrease government involvement in the provision of broadband and let the market work more effectively.

Failing that, a simplified LATA modification process is required. The Commission has implemented a procedure to allow RBOCs to petition for

modifications of LATA boundaries, in order to provide data services to areas that are underserved by backbone.¹⁸ However, the showing that BOCs must make to gain a LATA modification is so complex and onerous that the Commission's procedure is likely to have little practical impact.¹⁹ A less complicated procedure would allow RBOCs to react quickly to demand for backbone in rural areas, and would give these areas significantly better access to broadband services.

B. Although Backbone Services Have Suffered From Over-Regulation, Advanced Services Deployment is Proceeding at Reasonable Levels Across Market Segments and Geographic and Demographic Boundaries.

Despite the regulatory strictures that have prevented broadband access to the Internet backbone from growing as fast as it otherwise should in some areas, the deployment of local, broadband advanced services to the home and business is generally proceeding in a reasonable and timely fashion. While the implementation of these services is not completely uniform, the minor variances

¹⁸ See In the Matter of Request by Bell-Atlantic West Virginia for Interim Relief, Fourth Report and Order, CC Docket No. 98-147, FCC 00-26 (rel. February 11, 2000).

¹⁹ In order to gain a LATA modification, an RBOC must "make a very specific showing in its initial petition," which includes information on the customers to be served, the specific service currently provided or to be provided to that customer, the capacity required to provide the service, the protocols to be used to provide the service (e.g., IP, ATM, etc.), the physical mode of transport, the path that the network would take once the LATA change was granted (including a map showing the location of the nearest NAP), efforts made to obtain interLATA access from an IXC, and any response received from another provider of interLATA transport. *Id.* at ¶¶ 20, 24.

that do exist are to be expected, as some areas and groups can logically be expected to adopt a new technology before others. There is no evidence that any specific areas of the country or demographic group are systematically falling behind in access to local broadband capability.

1. Broadband is Becoming Reasonably Available to All Types of Consumers

Today, home and business consumers have a phenomenal range of choices when it comes to broadband. Cable companies, CLECs, and ILECs are all providing broadband services, using both cable plant-based broadband and DSL. Satellite systems also offer limited broadband options, and there are ambitious plans to expand current offerings and initiate sweeping new ones, such as the Teledesic system.²⁰

In the past year, DSL service has undergone particularly impressive growth. A recent TeleChoice report indicates that the number of DSL lines in use grew from 39,000 at the end of 1998 to more than 500,000 at the end of 1999.²¹ While this growth is slightly below the predicted level, which forecast 575,000 lines in use by the end of 1999, it remains a gigantic increase. Further, TeleChoice anticipates that by the end of 2000, there will be 2.1 million DSL lines

²⁰ Teledesic intends to offer satellite-based, high-speed Internet access with essentially global coverage starting in 2004. See Teledesic Fast Facts, *available at* <<http://www.teledesic.com/about/about.htm>>.

²¹ See Analysis of xDSL Technologies, Deployment, *available at* <http://www.xdsl.com/content/resources/deployment_info.asp> ("*TeleChoice Report*").

in service, and that the number will balloon to 9.6 million by the end of 2003.²² A different study, by Computer Electronics, predicts that there will be a total of 2.4 million DSL subscribers by the end of the year, and that this number will increase to 13.8 million within 5 years.²³

TeleChoice further anticipates that in 2000 a range of important developments will impact the market for DSL. The introduction of new services and technologies, such as combination ADSL/G.lite/V.90 chipsets, multiservice DSLAMs, and commercial HDSL2 and SHDSL services, with combination HDSL2 and SHDSL chipsets, should boost demand for DSL.²⁴ In the consumer and small business market, TeleChoice forecasts a new emphasis on discounting the price of basic DSL service in order to compete with established broadband providers such as cable, and a major push for DSL through reselling partners, such as ISPs.²⁵ The competition from the entrenched cable providers for the low-end enterprise market, however, should also intensify, with the introduction of the cable modem-based DOCSIS 1.1 standard.²⁶

GTE has been at the forefront of offering DSL services. At the end of 1999, ADSL support was installed in 617 GTE wire centers, using 2,952

²² *Id.*

²³ See COMM. DAILY, March 14, 2000 at 7.

²⁴ See *TeleChoice Report*.

²⁵ *Id.*

²⁶ *Id.*

DSLAMs. These locations support some 11,000,000 lines, of which more than 6,000,000 are ADSL capable.²⁷ By the end of 2000, GTE expects to have ADSL capabilities in an additional 500 locations, with support for 12.4 million lines and ADSL available on 7.2 million of these. GTE currently has 80,000 ADSL lines in service (which is over one-sixth of the ADSL lines in service throughout the country) in 17 different states.²⁸ During the current year, GTE expects that its number of ADSL lines in service will grow to over 200,000, and that two additional states will be added to the list.²⁹ Moreover, ADSL remains primarily a residential service, with 73 percent of lines serving residential consumers, and only 27 percent used for business.

Other carriers, such as CLECs, are also aggressively building out broadband capacity. Rythms Communications, for example, offers DSL service in 100 cities covered by 70 different markets.³⁰ Teligent offers a broadband service using fixed wireless technology in 34 of the largest markets in the

²⁷ The number of "lines supported," or "lines passed," includes all telephone lines served by an exchange. Due to technical limitations inherent in ADSL technology, not all of the lines supported are actually suitable for ADSL deployment.

²⁸ GTE currently provides ADSL service in Hawaii, California, Oregon, Washington, Idaho, Texas, Missouri, Michigan, Indiana, Illinois, Ohio, Kentucky, North Carolina, Virginia, Pennsylvania, Florida and Wisconsin.

²⁹ GTE expects to add markets in South Carolina and Alabama during 2000.

³⁰ See Rythms Network FAQ, *available at* http://www.rhythms.com/net_faq.html#15

country, which cover 522 towns and cities and reach 93 million people.³¹ Winstar provides similar service, including backbone and Tier 1 peering, in 60 of the largest markets in the United States.³² Covad, which had service in 51 markets in September 1999, expects to cover 100 markets after its build out is complete; in the markets it currently serves, Covad's lines pass 25 million homes, and they have installed 31,000 end-user lines.³³ Teledesic anticipates offering broadband coverage to 95 percent of the earth's landmass and 100 percent of the global population, with speeds averaging 2 Mbps on the uplink and 64 Mbps on the downlink,³⁴ by 2004.³⁵

As impressive as these numbers are, ILECs, CLECs and satellite providers are all new entrants in the broadband market when compared to the cable providers, whose current deployment numbers continue to dwarf those of DSL and other alternative technologies. For example, @Home has entered into distribution agreements that allow it to pass 57 million homes. As of December 1998 (the most recent period for which these numbers have been reported),

³¹ See SEC 10Q filing of Teligent, Inc., November 15, 1999.

³² See SEC 10Q filing of Winstar Communications, Inc., November 15, 1999.

³³ See SEC 10Q filing of Covad Communications Group, Inc., November 15, 1999.

³⁴ See Teledesic Technology Overview, *available at* <<http://www.teledesic.com/tech/tech.htm>>.

³⁵ See Teledesic Fast Facts, *available at* <<http://www.teledesic.com/about/about.htm>>.

@Home had 331,000 cable modem subscribers.³⁶ Given the 158 percent growth in subscribership between September 1998 and December 1998, these numbers have almost certainly increased substantially over the past year.³⁷ The Computer Electronics study anticipates a total of 5.7 million cable modem subscribers by the end of 2000, and a jump to 27.6 million subscribers by the end of 2005.³⁸

The Commission has inquired about the nature of competition in the residential broadband industry over the next three to five years.³⁹ While exact forecasts are difficult in an industry that changes so quickly, the above numbers indicate that competition for residential broadband consumers will be fierce. The numbers also demonstrate that a diverse array of providers are using a wide variety of technologies to provide advanced services, and that while cable has some specific advantages, there is no clear method of accessing broadband capability preferred by consumers. As a result, regulatory symmetry will be increasingly important in the broadband market. Subjecting each entrant in the broadband market to a differing set of regulations will lead to untenable results and will inevitably stifle competition in the long run.

³⁶ See SEC 10K filing of AT&T Corp., March 19, 1999.

³⁷ *Id.*

³⁸ See COMM. DAILY, March 14, 2000 at 7.

³⁹ See NOI at ¶ 25.

The Commission has also asked whether the deployment of broadband to business customers is a catalyst to the deployment of broadband to residential customers.⁴⁰ In the case of ADSL, GTE's initial focus was on the residential market and only secondarily on the business market, from the perspective primarily of telecommuting. The best example of businesses acting as an "anchor" for ADSL services are university communities. In these areas, there tends to be a need for high-speed data transfer between the university and the students and faculty, as well as a large number of potential subscribers living in a relatively concentrated area, which fits well with some of the technical limitations on ADSL. The presence of universities has led to ADSL deployment in Durham, North Carolina, Lafayette, Indiana, and College Station, Texas sooner than otherwise would have been the case. On the other hand, technologies such as ATM and frame relay are typically deployed to meet business customer needs, except where they are used to aggregate residential customer traffic. These services offer much higher bandwidth, and commensurately higher cost, than can be utilized in the residential market at this time.

2. Local Broadband Access is Becoming Available Throughout All Geographic Areas and Demographic Groups.

Local broadband service, from a variety of providers, is becoming available throughout the nation. Although, as discussed above, certain rural

⁴⁰ See NOI at ¶ 20.

areas do not enjoy sufficient broadband links to the Internet, there are no communities or areas that are suffering a systemic disadvantage in availability of broadband last mile service. Certain areas have experienced faster growth than others, based on a wide range of factors, but the fact that some areas have been quicker to adopt this new technology should not be confused with an unreasonable lack of deployment in other areas.

GTE is currently deploying ADSL as fast as possible, given current economic realities. Naturally, areas with higher population densities were the first to receive deployment of services, since these areas had the largest number of potential customers to defray the investment in new infrastructure. However, as the popularity of broadband increases, and as demand for the service spreads, GTE is rolling it out to rural areas, as well.⁴¹

It is important to note that offering DSL capacity does not necessarily translate into customer penetration. Even once all of GTE's central offices are equipped with DSLAMs and the other technologies needed to provide DSL, there are no guarantees that all or even most customers will sign up for the service. There will naturally be variations in the number of consumers among a given set of areas who wish to purchase broadband technology. As a result, the Commission should focus on the degree to which DSL is available in a given

⁴¹ As part of their merger, GTE and Bell Atlantic have committed to specific implementation targets in order to provide xDSL service to low-income households in both rural and urban areas. See In the Matter of GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer of Control, Proposed Conditions For Bell Atlantic/GTE Merger, CC Docket No. 98-184 (January 27, 2000), at 25.

area, which is within a carrier's control, rather than the percentage of consumers who actually sign up for it, which is not.⁴²

3. There is No Correlation Between “Low Quality” POTS and Economically Disadvantaged or Rural Areas.

It is impossible to draw a link between the ability to provide DSL and the quality of the POTS network. Due to technological realities, some of the “highest quality” networks a carrier has may be some of the least qualified for DSL usage.

The main concerns, with respect to providing broadband via DSL, stem directly from the fact that the POTS network was designed and optimized for voice transmission, rather than high speed data; some of the techniques used to provide reliable, high-quality voice transmissions over long distances are simply incompatible with high-speed data transmission. For example, load coils, which are used to increase the quality of voice transmission, are natural inhibitors to high-speed data transmission.

In addition, in some areas carriers use Digital Loop Carriers (“DLC”), which aggregate a number of copper pairs into a single fiber connection to the Central Office. DLCs are the state-of-the-art in voice transmission, and provide

⁴² The Commission has also inquired about access to broadband services by the disabilities community. Section 255 covers the issue of access to telecommunications services by those with disabilities adequately. There is no reason to stretch Section 706, which is inherently *deregulatory* in intent, to cover new regulations on disabled access to services, when Section 255 already exists. The FCC should address any perceived problems with disability access pursuant to Section 255.

unmatched quality of service and reliability when used for voice. However, because DSL requires an uninterrupted pair of copper wires between the Central Office and the subscriber's modem, DLC-equipped lines present tremendous challenges in implementing high speed data service.⁴³

In short, many of the best voice networks that a carrier has will be among the worst candidates for DSL. Applying DSL to the preexisting voice infrastructure requires the voice network to perform in ways that it was never designed to. The ability of some portions of the POTS network to support high-speed data applications is not a reflection of the quality of the voice network, but rather a demonstration of the resilience of some parts of the voice network, which have been able to deliver services far beyond their intended design criteria.

IV. The Market Should Be Allowed to Shape the Future of Advanced Telecommunications.

There is no need for the Commission to develop a standard by which to measure "reasonable and timely" deployment,⁴⁴ nor is there any reason for the Commission to attempt to accelerate broadband deployment through the use of

⁴³ The use of DLCs in a telephone network means that DSLAMs have to be located at the fiber junction in remote terminals, rather than at the Central Office. Because of the limited space in the remote terminals, DSLAM siting can be a major challenge, especially if the equipment must be owned and operated by a separate company or affiliate.

⁴⁴ See NOI at ¶ 38.

greater regulation.⁴⁵ The rapidly expanding market for broadband services is driving every telecommunications company in the country to invest in the capacity to provide these services in one form or another. As the Commission noted in the *First Report*, the amount of investment being undertaken is “large even by the standards of America’s communications business.”⁴⁶

This rapid investment has led to the development of a host of new technologies, each with advantages and disadvantages that may only become fully apparent as each system is further developed. If the FCC were to attempt to regulate the adoption of one or more of these technologies in certain areas, or for certain purposes, it would inevitably stifle this rush of development, and would end up with a result far less optimal than if the market is allowed to mature on its own.

The FCC should endeavor to minimize the regulatory impact on the market as much as possible. Aside from lifting or relaxing the restrictions on RBOC interLATA data transport, this also means relaxing restrictions in other areas. Development of “3G” wireless services, for example, will depend heavily on whether the FCC makes enough spectrum available to carriers to provide these spectrum-intensive services.⁴⁷ While the FCC should be commended on its actions in the 700 MHz proceeding, it should not stop there. Lifting the

⁴⁵ *Id.* at ¶ 43.

⁴⁶ *First Report* at 2414.

⁴⁷ See NOI at ¶¶ 13, 45, 48.

eligibility and spectrum cap restrictions as they apply to the C and F block license auctions would ensure that wireless providers have sufficient resources to develop the next wave of broadband-enabled wireless devices, and would speed the deployment of broadband generally.

Where, as in the broadband market, development and deployment of technology is thriving but for a few specific, heavily regulated areas, the solution is not to impose further regulation. Instead, the FCC must decide that one of the most potent and effective tools that it has been provided with under Section 706 is the mandate to *decrease* regulation that is hampering the further development of advanced telecommunications services. As the market is allowed to proceed free from unnecessary regulation, deployment of advanced services will only improve.

The elimination of regulation would clearly be the most effective way to increase broadband deployment and would be most in keeping with the deregulatory intent of Section 706. However, if the Commission does decide to impose any new regulatory mechanisms, it must ensure that they are non-discriminatory, so that no one segment of the industry is advantaged at the expense of the others. The Commission must also provide for full cost recovery in any such system, so that carriers are not forced to shoulder the burden of providing advanced services by themselves.

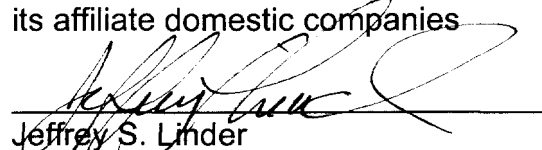
V. Conclusion

The Commission's second inquiry into advanced services should draw the same conclusion as the first: that deployment is proceeding on a reasonable and timely basis, and that no further government intervention is needed. At the same time, the FCC must rededicate itself to the deregulatory mandate of Section 706, and work to eliminate the distortions that regulation causes in the development of advanced services. Steps like urging Congress to eliminate the interLATA data restrictions in Section 271 and lifting the spectrum and eligibility caps for C and F block licenses would help open the market for broadband even further and would continue to spur deployment of new technologies.

Respectfully submitted,

GTE SERVICE CORPORATION and
its affiliate domestic companies

By:


Jeffrey S. Linder
Joshua S. Turner
WILEY, REIN & FIELDING
1776 K Street, N.W.
Washington, D.C. 20006
(202) 429-7000

Gail L. Polivy
GTE Service Corporation
1850 M Street, N.W.
Suite 1200
Washington, D.C. 20036
(202) 463-5214

Thomas R. Parker
GTE Service Corporation
600 Hidden Ridge, MS HQ-E03J43
P.O. Box 152092
Irving, Texas 75015-2092
(972) 718-6361

Its Attorneys

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